West Virginia Department of Environmental Protection

Austin Caperton Cabinet Secretary

Title V Operating Permit Revision



For Significant Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number:

SM01 SIC: 4922

Name of Permittee:

Columbia Gas Transmission, LLC Terra Alta Compressor Station

Facility Name/Location: County:

Preston

Permittee Mailing Address:

1700 MacCorkle Avenue, SE, Charleston, WV 25314

Description of Permit Revision:

This modification is proposing to add R13-3431 requirements for emergency generator (049G3) rated at 530 horsepower (hp); and remove the existing emergency generator (049G1) rated at 300-

hp. 049G3 was permitted under R13-3431.

Title V Permit Information:

Permit Number:

R30-07700017-2017

Issued Date:

July 24, 2017

Effective Date:

August 7, 2017

Expiration Date:

July 24, 2022

Directions To Facility:

From I-79 take State Route 7 east to Terra Alta. Traveling east on State Route 7 to the town of Terra Alta, turn right onto Secondary Route 53. Proceed

approximately 2 miles to the station which is located on the right.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.

Laura M. Crowder

Director, Division of Air Quality

6/4/2019

Date Issued

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1.0 Emission Units and Active R13, R14, and R19 Permits

1.1. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
BLR3*	BL3	Heating System Boiler; Peerless Model # 211A-21	2001	3.57 mmBtu/hr	N/A
HTR1*	H1	North Field Indirect-fired Line Heater #1; NATCO Model # 3X6-25	1959	4.0 mmBtu/hr	N/A
HTR2*	H2	North Field Indirect-fired Line Heater #2; NATCO Model # 3X6-25-Y	1959	4.0 mmBtu/hr	N/A
HTR3*	Н3	North Field Indirect-fired Line Heater #3; BS&B Model # 6X24	1969	8.0 mmBtu/hr	N/A
HTR4*	H4	South Field Indirect-fired Line Heater; NATCO Model # 3X6-25-Y	1959	4.0 mmBtu/hr	N/A
HTR5*	H5	Zone 6 Indirect-fired Line Heater; Bryant Inc Serial # 21031F	1981	1.0 mmBtu/hr	N/A
HTR6*	Н6	Contact tower Regen. Heater John Zink Model VPM-RA30	1959	3.0 mmBtu/hr	N/A
04901*	E01	Reciprocating Engine/Integral Compressor; Clark TRA-6; 2-cycle, lean burn	1960	1,100 HP	N/A
04902*	E02	Reciprocating Engine/Integral Compressor; Clark TRA-6; 2-cycle, lean burn	1960	1,100 HP	N/A
04903*	E03	Reciprocating Engine/Integral Compressor; Clark TRA-6; 2-cycle, lean burn	1960	1,100 HP	N/A
04904*	E04	Reciprocating Engine/Integral Compressor; Clark TRA-6; 2-cycle, lean burn	1960	1,100 HP	N/A
04905*	E05	Reciprocating Engine/Integral Compressor; Clark TRA-6; 2-cycle, lean burn	1970	1,100 HP	N/A
04907*	E07	Reciprocating Engine/Dehy Compressor; Waukesha F11GSIU; 4-cycle, rich burn	2004	174 HP	C1 Catalyst
049G1*	G1	Reciprocating Engine/Generator; Roiline L-3460; 4-cycle, rich burn; emergency	1960	300-HP	N/A
049G3*	G3	Reciprocating Engine/Generator, Waukesha VGFH24GL; 4-cycle, lean burn; emergency	20169 (Mfg. 2008)	530 HP	N/A
FLLP1	FL1	Odorant Flare #1; John Zink; 98% VOC Abatement	1981/2005	0.5 mmBtu/hr	N/A
A27	FL1	Mercaptan Odorant Storage Tank	2005	250 gallons	FLLP1

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Permit Number	Date of Issuance
N/A R13-3431	N/A March 13, 2019

Secretary may have the opportunity to observe such tests. This notification shall include the actual date and time during which the test will be conducted and, if appropriate, verification that the tests will fully conform to a referenced protocol previously approved by the Secretary.

- d. The permittee shall submit a report of the results of the stack test within 60 days of completion of the test. The test report shall provide the information necessary to document the objectives of the test and to determine whether proper procedures were used to accomplish these objectives. The report shall include the following: the certification described in paragraph 3.5.1; a statement of compliance status, also signed by a responsible official; and, a summary of conditions which form the basis for the compliance status evaluation. The summary of conditions shall include the following:
 - 1. The permit or rule evaluated, with the citation number and language.
 - 2. The result of the test for each permit or rule condition.
 - 3. A statement of compliance or non-compliance with each permit or rule condition.

[WV Code §§ 22-5-4(a)(14-15) and 45CSR13]

3.4. Recordkeeping Requirements

- 3.4.1. **Monitoring information.** The permittee shall keep records of monitoring information that include the following:
 - a. The date, place as defined in this permit and time of sampling or measurements;
 - b. The date(s) analyses were performed;
 - c. The company or entity that performed the analyses;
 - d. The analytical techniques or methods used;
 - e. The results of the analyses; and
 - f. The operating conditions existing at the time of sampling or measurement.

[45CSR§30-5.1.c.2.A.;45CSR13, R13-3431, 4.4.1]

3.4.2. **Retention of records.** The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of monitoring sample, measurement, report, application, or record creation date. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. Where appropriate, records may be maintained in computerized form in lieu of the above records.

[45CSR§30-5.1.c.2.B.]

3.4.3. Odors. For the purposes of 45CSR4, the permittee shall maintain a record of all odor complaints received, any investigation performed in response to such a complaint, and any responsive action(s) taken.

[45CSR§30-5.1.c. State-Enforceable only.]

3.5. Reporting Requirements

3.5.1. **Responsible official.** Any application form, report, or compliance certification required by this permit to be submitted to the DAQ and/or USEPA shall contain a certification by the responsible official that states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

[45CSR§§30-4.4. and 5.1.c.3.D.]

- 3.5.2. A permittee may request confidential treatment for the submission of reporting required under 45CSR§30-5.1.c.3. pursuant to the limitations and procedures of W.Va. Code § 22-5-10 and 45CSR31. [45CSR§30-5.1.c.3.E.]
- 3.5.3. Except for the electronic submittal of the annual compliance certification and semi-annual monitoring reports to the DAQ and USEPA as required in 3.5.5 and 3.5.6 below, all notices, requests, demands, submissions and other communications required or permitted to be made to the Secretary of DEP and/or USEPA shall be made in writing and shall be deemed to have been duly given when delivered by hand, or mailed first class or by private carrier with postage prepaid to the address(es), or submitted in electronic format by e-mail as set forth below or to such other person or address as the Secretary of the Department of Environmental Protection may designate:

DAQ: US EPA:

Director

WVDEP

Associate Director

Office of Air Enforcement and Compliance Assistance

(2.4.122)

601 57th Street SE (3AP2)

Charleston, WV 25304

U. S. Environmental Protection Agency, Region III

Enforcement and Compliance Assurance Division Air

Section (3ED21)

1650 Arch Street

Philadelphia, PA 19103-2029

DAQ Compliance and Enforcement¹:

DEPAirQualityReports@wv.gov

¹For all self-monitoring reports (MACT, GACT, NSPS, etc.), stack tests and protocols, Notice of Compliance Status reports, Initial Notifications, etc.

- 3.5.4. Certified emissions statement. The permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality.

 [45CSR§30-8.]
- 3.5.5. Compliance certification. The permittee shall certify compliance with the conditions of this permit on the forms provided by the DAQ. In addition to the annual compliance certification, the permittee may be required to submit certifications more frequently under an applicable requirement of this permit. The annual

- e. 40 CFR Part 60 Subpart Dc Standards of Performance for Steam Generating Units: The heating system boiler and heaters at this facility are less than 10 MMBtu/hr design heat capacity, which is below the applicability criteria stated in 40 CFR §60.40c(a).
- f. 40 CFR Part 60 Subpart K and Ka Standards of Performance for Petroleum Liquid Storage Vessels. All tanks at the station are below the applicability criteria of 40,000 gallons in capacity as stated in 40 CFR §§60.110(a) and 60.110a(a).
- g. 40 CFR Part 60 Subpart Kb Standards of Performance for Volatile Organic Liquid Storage Vessels. All tanks at the station are between 75 m3 (19,813 gallons) and 151 m3 (39,890 gallons) in capacity storing a liquid with a maximum true vapor pressure less than 15 kPa (112.5 mmHg). Therefore, they are exempt from this subpart as stated in the applicability criteria of 40 CFR §§60.110b(a) and (b).
- h. 40 CFR Part 60 Subparts GG and KKKK The provisions of these subparts are not applicable because there are no turbines installed at this location.
- i. 40 CFR Part 60 Subpart KKK Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plant(s). This compressor station is not engaged in the extraction or fractionation of natural gas liquids from field gas, the fractionation of mixed natural gas liquids to natural gas products, or both. As a result, the station has no affected sources operating within this source category.
- j. 40 CFR Part 60 Subpart JJJJ Standards of Performance for Stationary Spark Ignition (SI) Internal Combustion Engines. All non-emergency SI engines located at this site were installed before July 12, 2006. These engines are not subject to 40 CFR Part 60 Subpart JJJJ per 40 CFR §60.4230(a)(4). The emergency SI engines were was manufactured before January 1, 2009 and are is not subject per 40 CFR §60.4230(a)(4)(iv).
- k. 40 CFR Part 60 Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines: There are no compression ignition engines at this facility.
- 40 CFR Part 60 Subpart OOOO Standards of Performance for Crude Oil and Natural Gas Production, Transmission, and Distribution for which Construction, Modification, or Reconstruction Commenced after August 23, 2011 and on or before September 18, 2015. The storage vessel requirements defined for transmission sources are not applicable to this site because all vessels were constructed, modified, or reconstructed prior to August 23, 2011, in accordance with 40 CFR §60.5365(e).
- m. 40 CFR Part 60 Subpart OOOOa Standards of Performance for Crude Oil and Natural Facilities for which Construction, Modification, or Reconstruction Commenced after September 18, 2015. The GHG and VOC requirements defined by this NSPS are not applicable to this site because all affected sources commenced construction prior to September 18, 2015 in accordance with 40 CFR §60.5365a.
- n. 40 CFR Part 63 Subpart YYYY There are no turbine engines at this facility.
- o. 40 CFR Part 63 Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. The transmission station is not subject to Subpart HHH since there are no affected dehydration units utilized at this site.

7.0 40 CFR 63, Subpart ZZZZ Requirements for Existing Emergency SI RICE < 500 HP at Major HAP Sources [Emission Point ID: G1] R13-3431 Requirements [Emission Unit ID: 049G3]

7.1. Limitations and Standards

7.1.1. If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations and other requirements in Table 2c to 40 CFR 63, subpart ZZZZ which apply to you.

Table 2c states:

For each Emergency stationary SI RICE and black start stationary SI RICE.¹

- a. Change oil and filter every 500 hours of operation or annually, whichever comes first;²
- b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.³

'If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable.

²Sources have the option to utilize an oil analysis program as described in 40 CFR §63.6625(i) or (j) in order to extend the specified oil change requirement in Table 2c of this subpart.

³Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[45CSR34, 40 CFR §63.6602, Table 2c (Condition 6)]

Maximum Yearly Operation Limitation: The maximum yearly hours of operation for the natural gas fired emergency generator set (049G3) shall not exceed 500 hours per year. Compliance with the Maximum Yearly Operation Limitation shall be determined using a twelve month rolling total. A twelve month rolling total shall mean the sum of the hours of operation at any given time during the previous twelve consecutive calendar months.

[45CSR13, R13-3431, 4.1.1]

- 7.1.2. a. You must be in compliance with the emission limitations, operating limitations, and other requirements in this subpart that apply to you at all times.
 - b. At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to

make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[45CSR34, 40 CFR §63.6605]

Pollutant	Emission Limit (lb/hr)	Emission Limit (tpy)
NO _x	2.57	0.58
CO	2.25	0.51
PM ₁₀	0.04	0.01
PM _{2.5}	0.04	0.01
VOC	0.96	0.22
Formaldehyde	0.24	0.05

[45CSR13, R13-3431, 4.1.2]

7.1.3. If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table 2c to 40 CFR 63, subpart ZZZZ apply.

[45CSR34, 40 CFR §63.6625(h)]

The generator set's engine shall be equipped with a non-resettable hour meter. [45CSR13, R13-3431, 4.1.3]

- 7.1.4. If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs 1, through 3, below. In order for the engine to be considered an emergency stationary RICE under 40 CFR 63, subpart ZZZZ, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs 1, through 3, below, is prohibited. If you do not operate the engine according to the requirements in paragraphs 1, through 3 below, the engine will not be considered an emergency engine under 40 CFR, subpart ZZZZ and must meet all requirements for non-emergency engines.
 - 1. There is no time limit on the use of emergency stationary RICE in emergency situations.
 - 2. You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs i. through iii. below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph 3. below counts as part of the 100 hours per calendar year allowed by this paragraph.

- i. Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- ii. Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP 002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP 002-3.
- iii. Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- 3. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph 2, above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[45CSR34, 40 CFR § 63.6640(f)]

Operation and Maintenance of Air Pollution Control Equipment. The permittee shall, to the extent practicable, install, maintain, and operate all pollution control equipment listed in Section 1.0 and associated monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions, or comply with any more stringent limits set forth in this permit or as set forth by any State rule, Federal regulation, or alternative control plan approved by the Secretary.

[45CSR13, R13-3431, 4.1.4]

7.2. Monitoring Requirements

- 7.2.1. a. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
 - b. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
 - c. If you own or operate a stationary SI engine that is subject to the work, operation or management practices in item 6 of Table 2c to 40 CFR 63 subpart ZZZZ, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table 2c. The oil analysis

must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[45CSR34, 40 CFR §§63.6625(e), (f), and (j), §63.6640(a), Table 6 (Condition 9)]

For the purpose of demonstrating compliance with the limitation on hours of operation for the emergency generator set as established in Condition 7.1.1 of this permit, the permittee shall record the number of hours the generator set operated as recorded through the non-resettable hour meter during the calendar month and the reason for such operation. These records shall be maintained in accordance with Condition 3.4.2.

[45CSR13, R13-3431, 4.2.1]

7.3. Testing Requirements

7.3.1. N/A

At such reasonable time(s) as the Secretary may designate, in accordance with the provisions of 3.3 of this permit, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in this permit and/or applicable regulations.

[45CSR13, R13-3431, 4.3.1]

7.4. Recordkeeping Requirements

- 7.4.1. a. If you must comply with the emission and operating limitations, you must keep the records described in paragraphs a.l. through a.5. below
 - 1. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).
 - 2. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.
 - 3. Records of performance tests and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).
 - 4. Records of all required maintenance performed on the air pollution control and monitoring equipment.
 - 5. Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

- b. You must keep the records required in Table 6 (Condition 7.2.1..a.) to show continuous compliance with each emission or operating limitation that applies to you.
- c. You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after treatment control device (if any) according to your own maintenance plan if you own or operate an existing stationary emergency RICE.
- d. If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines, you must keep records of the hours of operation of the engine that is recorded through the non resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in 40 CFR §63.6640(f)(2)(ii) or (iii) or 40 CFR §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

[45CSR34, 40 CFR §§63.6655(a), (d), (e), and (f)(1), Table 6 (Condition 9)]

Record of Maintenance. The permittee must keep a maintenance plan and records of conducted maintenance.

[45CSR13, R13-3431, 4.4.2]

7.5. Reporting Requirements

- 7.5.1. a. You must report each instance in which you did not meet each emission limitation or operating limitation in Table 2c to 40 CFR 63, Subpart ZZZZ that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in 40 CFR §63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.
 - b. You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you.

[45CSR34, 40 CFR §§ 63.6640(b) and (e)]

See Facility-Wide Reporting Requirements Section 3.5. [45CSR13, R13-3431, 4.5.1]

7.6. Compliance Plan

7.6.1. N/A